

**Notice of Allowability**

Application No.

10/749,946

Examiner

Betsey M. Hoey

Applicant(s)

CLARK ET AL.

Art Unit

1724

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to application filed 31 December 2003.
2. ☒ The allowed claim(s) is/are 1-18.
3. ☒ The drawings filed on 06 July 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 12/31/03
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

1. Claims 1-18 are allowed.
2. The following is an examiner's statement of reasons for allowance:

Claims 1-9 are allowed because the prior art of record fails to teach, disclose, or fairly suggest a method for treating a metal-containing liquid containing reducing agents, comprising disposing the liquid in a vessel in contact with an anode in the vessel, disposing a catholyte solution in contact with a cathode in the vessel, driving an electrical current through the anode and cathode until a majority of reducing agents in the liquid are oxidized to create an intermediate solution, removing the intermediate solution and used catholyte solution, disposing the intermediate solution in contact with the cathode, disposing an anolyte solution in contact with the anode, and driving an electrical current through the anode and cathode until a majority of metal ions are plated onto the cathode, wherein the vessel has a hydrogen ion-permeable membrane separating the anode and cathode. It is submitted that removing metals from solution by plating onto a cathode is known in the art, the specific steps of the instant claims are not suggested by the prior art of record.

Claims 10-18 are allowed because the prior art of record fails to teach, disclose, or fairly suggest a method for treating a metal-containing liquid containing reducing agents, comprising disposing the liquid in a vessel in contact with a cathode in a vessel, disposing an anolyte solution in contact with an anode in the vessel, driving an electrical current through the anode and cathode until a majority of metal ions are plated onto the cathode to create an intermediate solution, removing the intermediate solution and used anolyte solution, disposing the intermediate solution in contact with the anode,

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disposing a catholyte solution in contact with the cathode, and driving an electrical current through the anode and cathode until a majority of the reducing agents are oxidized, wherein the vessel has a hydrogen ion-permeable membrane separating the anode and cathode. It is submitted that removing metals from solution by plating onto a cathode is known in the art, the specific steps of the instant claims are not suggested by the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betsey Hoey whose telephone number is **(571) 272-1158**. The examiner can normally be reached on Mondays, Tuesdays, and Thursdays. The examiner's supervisor, Mr. Duane Smith, may be reached at (571) 272-1166. Any inquiry of general nature may be directed to the Group receptionist at (571) 272-0987. The centralized fax number for the Group is (703) 872-9306. The examiner Rightfax number is (571) 273-1158.



BETSEY MORRISON HOEY  
PRIMARY EXAMINER

April 19, 2005